



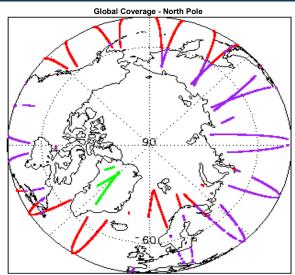
## 1. Overview

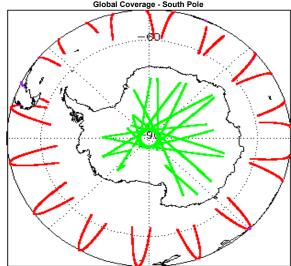
Report Production Date:	17-Jun-2019
Processor Used:	CryoSat Ice Processor
Data Used:	L1 and L2 Fast Delivery Marine (FDM)  Mode and L0 Data

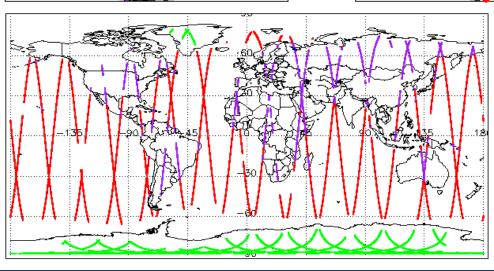
Check	Status
Server check: science-pds.cryosat.esa.int	Nominal
Server check: calval-pds.cryosat.esa.int	Nominal
Product Software Check	Nominal
Product Format Check	Nominal
Product Header Analysis	See Section 4.2, 5.2 and 6.2
Star Tracker Usage Check	See Section 5.3
Calibration Usage Check	Nominal
Auxiliary Data File Usage Check	Nominal
Auxiliary Correction Error Check	See Section 6.4
Measurement Confidence Data Check	See Section 5.7, 6.5, 6.6, 6.7 and 6.8

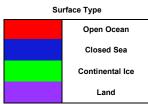
Mission / Instrument News		
15-Jun-2019	None	
16-Jun-2019	None	
17-Jun-2019	Nothing planned	

## 2. Global Coverage









## 3. Instrument Configuration

The SIRAL instrument configuration for the day of acquisition is provided below.

SIRAL instrument(s) in use:	SIRAL - A
Star Tracker(s) in use:	Star Tracker 1

## 4. Level 0 Data Quality Check

### 4.1 L0 Product Format Check

Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a binary product file (.DBL).

#### 4.2 L0 Product Header Analysis

For all products, a series of pre-defined checks are carried out on the MPH and SPH in order to identify any inconsistencies and/or errors raised by the processing chain.

Number of products with errors:

Product	Test Failed
CS_OPER_SIR1LRM_020190616T141556_20190616T144051_0001.DBL	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_0_20190616T203707_20190616T204116_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_0_20190616T221442_20190616T222119_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SAR_020190616T000459_20190616T000726_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR1SIN_020190616T002944_20190616T003447_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_0_20190616T222550_20190616T222733_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_020190616T072809_20190616T073129_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_0_20190616T233956_20190616T234223_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_020190616T063507_20190616T063600_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_020190616T003001_20190616T003447_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.
CS_OPER_SIR2SIN_0_20190616T122256_20190616T122443_0001.HDR	Percentage of processing errors detected greater than minimum acceptable threshold.

### 5. Level 1B FDM Data Quality Check

### 5.1 L1B FDM Product Format Check

Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a binary product file (.DBL).

Number of products with errors:

#### 5.2 L1B FDM Product Header Analysis

For all products, a series of pre-defined checks are carried out on the MPH and SPH in order to identify any inconsistencies and/or errors raised by the ground-segment processing chain.

Number of products with errors:

Product	Test Failed
CS_OFFL_SIR_FDM_1B_20190616T031614_20190616T031745_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20190616T030926_20190616T031614_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20190616T063158_20190616T063239_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20190616T095619_20190616T095823_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20190616T045304_20190616T045307_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20190616T095514_20190616T095619_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).
CS_OFFL_SIR_FDM_1B_20190616T045147_20190616T045304_C001.DBL	FOS Predicted Orbit (MPL_ORBPRE) used instead of the DORIS Navigator Orbit (DOR_NAV).

#### 5.3 L1B FDM Star Tracker Usage Check

Each product is checked in order to ensure a valid star tracker file has been used in processing.

Number of products with errors:

Product	Test Failed
CS_OFFL_SIR_FDM_1B_20190616T030926_20190616T031614_C001	No Star Tracker file used in the processing of this product
CS_OFFL_SIR_FDM_1B_20190616T045147_20190616T045304_C001	No Star Tracker file used in the processing of this product
CS_OFFL_SIR_FDM_1B_20190616T095514_20190616T095619_C001	No Star Tracker file used in the processing of this product

#### 5.4 L1B FDM Calibration Usage Check

Each product is checked in order to ensure the necessary calibration files have been used in processing.

Number of products with errors:

### 5.5 L1B FDM Auxilary Data File Usage Check

Each product is checked for missing Data Set Descriptors with respect to a pre-determined baseline and also to check the validity of Auxiliary Data Files is correct.

Number of products with errors: 0

### 5.6 L1B FDM Auxiliary Correction Error Check

CryoSat L1B data includes a correction error flag (field 54) for each measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors: 0

#### 5.7 L1B FDM Measurement Confidence Data Check

CryoSat L1B data includes a measurement confidence flag (field 18) for each measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_FDM_1B_20190616T030926_20190616T031614_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20190616T045147_20190616T045304_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20190616T095514_20190616T095619_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_1B_20190616T205405_20190616T213014_C001	Echo error, TRK echo error	The tracking echo has returned an error and the Rx1 Echo Error flag is set, indicating a degraded echo

### 6. Level 2 FDM Data Quality Check

#### 6.1 L2 FDM Product Format Check

Each product, retrieved and unpacked from the science server, is checked to ensure it consists of both an XML header file (.HDR) and a binary product file (.DBL).

Number of products with errors:

#### 6.2 L2 FDM Product Header Analysis

For all products, a series of pre-defined checks are carried out on the MPH and SPH in order to identify any inconsistencies and/or errors raised by the ground-segment processing chain.

Number of products with errors:

Product

CS\_OFFL\_SIR\_FDM\_2\_20190616T045147\_20190616T045304\_C001.DBL

CS\_OFFL\_SIR\_FDM\_2\_20190616T030926\_20190616T031614\_C001.DBL

FOS Predicted Orbit (MPL\_ORBPRE) used instead of the DORIS Navigator Orbit (DOR\_NAV).

CS\_OFFL\_SIR\_FDM\_2\_20190616T030926\_20190616T031614\_C001.DBL

FOS Predicted Orbit (MPL\_ORBPRE) used instead of the DORIS Navigator Orbit (DOR\_NAV).

CS\_OFFL\_SIR\_FDM\_2\_20190616T031614\_20190616T095619\_C001.DBL

FOS Predicted Orbit (MPL\_ORBPRE) used instead of the DORIS Navigator Orbit (DOR\_NAV).

CS\_OFFL\_SIR\_FDM\_2\_20190616T031614\_20190616T031745\_C001.DBL

FOS Predicted Orbit (MPL\_ORBPRE) used instead of the DORIS Navigator Orbit (DOR\_NAV).

CS\_OFFL\_SIR\_FDM\_2\_20190616T063158\_20190616T045307\_C001.DBL

FOS Predicted Orbit (MPL\_ORBPRE) used instead of the DORIS Navigator Orbit (DOR\_NAV).

CS\_OFFL\_SIR\_FDM\_2\_20190616T045304\_20190616T045307\_C001.DBL

FOS Predicted Orbit (MPL\_ORBPRE) used instead of the DORIS Navigator Orbit (DOR\_NAV).

CS\_OFFL\_SIR\_FDM\_2\_20190616T151532\_20190616T154024\_C001.DBL

FOS Predicted Orbit (MPL\_ORBPRE) used instead of the DORIS Navigator Orbit (DOR\_NAV).

FOS Predicted Orbit (MPL\_ORBPRE) used instead of the DORIS Navigator Orbit (DOR\_NAV).

FOS Predicted Orbit (MPL\_ORBPRE) used instead of the DORIS Navigator Orbit (DOR\_NAV).

#### 6.3 L2 FDM Auxiliary Data File Usage Check

Each product is checked for missing Data Set Descriptors with respect to a pre-determined baseline and also to check the validity of Auxiliary Data Files is correct.

Number of products with errors:

0

#### 6.4 L2 FDM Auxiliary Correction Error Check

Each product is checked to detect auxiliary corrections flagged by the ground-station processing chain as missing or containing errors.

Number of products with errors:

Product	Test Failed	Description
CS_OFFL_SIR_FDM_220190616T001748_20190616T002519_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T002521_20190616T002944_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T003448_20190616T004800_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T010317_20190616T012001_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T012157_20190616T012423_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T015142_20190616T015149_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T020143_20190616T022750_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T024321_20190616T030732_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T034030_20190616T035025_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T035604_20190616T040624_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T042148_20190616T044951_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T045543_20190616T045911_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T051221_20190616T054520_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T070320_20190616T072459_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T081629_20190616T081637_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T082808_20190616T090331_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T092236_20190616T095343_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T100638_20190616T102114_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T102708_20190616T104306_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T110031_20190616T111414_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T111628_20190616T112926_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T115555_20190616T120614_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T120755_20190616T122207_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T124217_20190616T125159_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T125503_20190616T130006_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T133853_20190616T140030_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T141556_20190616T144051_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T150503_20190616T150542_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T151532_20190616T154024_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T161155_20190616T162832_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T164237_20190616T164251_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T165709_20190616T171000_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T173524_20190616T180817_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records

CS_OFFL_SIR_FDM_220190616T184345_20190616T185817_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T191418_20190616T193553_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T195950_20190616T200159_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T201831_20190616T203707_C001	Sea State Bias Correction	There is an error with the Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T205405_20190616T213014_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T220153_20190616T221441_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T223308_20190616T224814_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T225017_20190616T225959_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records
CS_OFFL_SIR_FDM_220190616T232214_20190616T233854_C001	Sea State Bias Correction, Altimetric Wind Speed	There is an error with the Altimetric Wind Speed and Sea State Bias Correction for one or more records

### 6.5 L2 FDM Measurement Confidence Data Check

CryoSat L2 data includes a measurement confidence flag (field 8) for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors:

4

Product	Test Failed	Description
CS_OFFL_SIR_FDM_220190616T030926_20190616T031614_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_220190616T045147_20190616T045304_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_220190616T095514_20190616T095619_C001	Attitude correction missing	The attitude has not been corrected
CS_OFFL_SIR_FDM_220190616T205405_20190616T213014_C001	Echo error	The Echo Rx1 Error flag is set, indicating a degraded raw echo

### 6.6 L2 FDM Range Measurement Check

CryoSat L2 data includes a CFI (field 17) and OCOG (field 22) Range Averaging Status flag for each measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors:

20

Product	Test Failed	Description
CS_OFFL_SIR_FDM_220190616T001748_20190616T002519_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T002521_20190616T002944_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T010317_20190616T012001_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T012157_20190616T012423_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T015142_20190616T015149_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T024321_20190616T030732_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T042148_20190616T044951_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T045543_20190616T045911_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T082808_20190616T090331_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T100638_20190616T102114_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T102708_20190616T104306_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T1110031_20190616T1111414_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T111628_20190616T112926_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T115555_20190616T120614_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T124217_20190616T125159_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T125503_20190616T130006_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T141556_20190616T144051_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T150503_20190616T150542_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T151532_20190616T154024_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T165709_20190616T171000_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T173524_20190616T180817_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T184345_20190616T185817_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.

CS_OFFL_SIR_FDM_220190616T195950_20190616T200159_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T205405_20190616T213014_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T220153_20190616T221441_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T223308_20190616T224814_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T225017_20190616T225959_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T232214_20190616T233854_C001	CFI Retracked Range Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #13, #14, #15 and #16 should be ignored for these records.

## 6.7 L2 FDM SWH and Backscatter Measurement Check

CryoSat L2 data includes a SWH-Squared Averaging Status flag (field 39) and an CFI (field 45) and OCOG (field 51) Backscatter Averaging Status flag for each measurement record. The bit value of this flag indicates any problems when set.

Number of products with errors:

Product	Test Failed	Description
roduct		The master fail flag is set by the CFI call, for one or more records,
S_OFFL_SIR_FDM_220190616T001748_20190616T002519_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
S_OFFL_SIR_FDM_220190616T002521_20190616T002944_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
S_OFFL_SIR_FDM_220190616T010317_20190616T012001_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
S_OFFL_SIR_FDM_220190616T012157_20190616T012423_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
S_OFFL_SIR_FDM_220190616T015142_20190616T015149_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
S_OFFL_SIR_FDM_220190616T024321_20190616T030732_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
S_OFFL_SIR_FDM_220190616T042148_20190616T044951_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
S_OFFL_SIR_FDM_220190616T045543_20190616T045911_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T082808_20190616T090331_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
S_OFFL_SIR_FDM_220190616T100638_20190616T102114_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
S_OFFL_SIR_FDM_220190616T102708_20190616T104306_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
S_OFFL_SIR_FDM_220190616T110031_20190616T111414_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
S_OFFL_SIR_FDM_220190616T111628_20190616T112926_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T115555_20190616T120614_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T124217_20190616T125159_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
S_OFFL_SIR_FDM_220190616T125503_20190616T130006_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T141556_20190616T144051_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
S_OFFL_SIR_FDM_220190616T150503_20190616T150542_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
S_OFFL_SIR_FDM_220190616T151532_20190616T154024_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
S_OFFL_SIR_FDM_220190616T165709_20190616T171000_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
S_OFFL_SIR_FDM_220190616T173524_20190616T180817_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
S_OFFL_SIR_FDM_220190616T184345_20190616T185817_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
:S_OFFL_SIR_FDM_220190616T195950_20190616T200159_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T205405_20190616T213014_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
S_OFFL_SIR_FDM_220190616T220153_20190616T221441_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CS_OFFL_SIR_FDM_220190616T223308_20190616T224814_C001	CFI Backscatter Status Flag, SWH Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.

Squared Averaging Status Flag	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.
CFI Backscatter Status Flag, SWH	The master fail flag is set by the CFI call, for one or more records, indicating the values stored in fields #41, #42, #43 and #44 should be ignored for these records.

#### 6.8 L2 FDM Ocean Retracking Quality Check

CryoSat L2 data includes an ocean retracking quality flag (field 66) for each 20-Hz measurement record. The bit value of this flag indicates any problems when set.

mhar of products with arrors:

Test Failed Product The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T001748\_20190616T002519\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20190616T002521 20190616T002944 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T003448\_20190616T004800\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20190616T010317 20190616T012001 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T012157\_20190616T012423\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T015142\_20190616T015149\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T020143\_20190616T022750\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more record The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20190616T024321 20190616T030732 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T034030\_20190616T035025\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20190616T042148 20190616T044951 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T045543\_20190616T045911\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T051221\_20190616T054520\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20190616T065122 20190616T070034 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T070320\_20190616T072459\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T074056\_20190616T075155\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20190616T082808 20190616T090331 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T092236\_20190616T095343\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T100638\_20190616T102114\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20190616T102555 20190616T102652 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20190616T102708 20190616T104306 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20190616T110031 20190616T111414 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20190616T111628 20190616T112926 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T115555\_20190616T120614\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T124217\_20190616T125159\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T125503\_20190616T130006\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T133853\_20190616T140030\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20190616T141556 20190616T144051 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T150503\_20190616T150542\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T151532\_20190616T154024\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20190616T165709 20190616T171000 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T173524\_20190616T180817\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T184345\_20190616T185817\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20190616T191418 20190616T193553 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T193838\_20190616T195017\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T195950\_20190616T200159\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T201831\_20190616T203707\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T205405\_20190616T213014\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T214225\_20190616T220136\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T220153\_20190616T221441\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T223308\_20190616T224814\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS OFFL SIR FDM 2 20190616T225017 20190616T225959 C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records. The Ocean Retracking Quality Flag is set indicating the CFI Ocean CS\_OFFL\_SIR\_FDM\_2\_\_20190616T232214\_20190616T233854\_C001 Ocean Retracking Quality Flag Retracker was not successfully executed for one or more records.

## 7. QCC Report Analysis

The Quality Control for CryoSat (QCC) facility performs a primary survey of data products immediately after production by the PDS and LTA processing facilities. A list of the tests which raised errors or warnings is provided below.

Product type	Nb. Products	Nb. QCC Reports	Nb. Valid	Nb. Warnings	Nb. Errors
SIR_FDM_1B	143	143	143	0	0
SIR FDM 2	141	114	114	0	0

## 7.1 QCC Errors

Number of QCC reports with errors:

0

# 7.2 QCC Warnings

Number of QCC reports with warnings

0

## 7.3 Missing QCC Reports

Number of products with missing QCC reports:

120